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BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER	
LEWIS, JUSTIN V	

ART UNIT	PAPER NUMBER
3725	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,078	SCHWENK ET AL.	
	Examiner	Art Unit	
	JUSTIN V. LEWIS	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06 September 2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 6-11, 14, 16-19, 22-25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0050891 to Cohen ("Cohen") in view of U.S. Patent No. 5,169,155 to Soules, et. al. ("Soules").

Regarding claim 1, Cohen discloses a value document, comprising a value document substrate (tracking check 136) and a first feature substance (bar code pattern) for checking the value document, wherein the first feature substance forms an independent coding (note that the bar code pattern uses a plurality of bars of various

thicknesses, as seen in fig. 1), and is applied to the value document substrate (note that the bar code pattern is printed upon the substrate, as seen in fig. 1).

Cohen fails to disclose a second feature substance.

Soules teaches a second feature substance (card code pattern 11, designed to blend into the background upon which it is located), wherein the second feature substance: i) forms an independent coding (see col. 9, lines 5-8, teaching that the Soules card code pattern is composed of a series of "wide" bars and "narrow" bars extending from the top margin of the substrate to the bottom margin thereof); and ii) is applied to the value document substrate (see col. 9, lines 43-46, teaching the application of the Soules card code pattern to the surface of a substrate).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the Soules card code pattern to the surface of the Cohen tracking check, providing a means by which to surreptitiously include additional bar-coded information on the face of the check, which is machine-readable, but not visible to the human eye, in order to hide information, even from person designated to handle the checks, as explicitly taught by Soules (see col. 1, lines 10-34).

Regarding claim 6, Cohen, as modified by Soules, discloses the value document of claim 1, wherein at least one coding extends over a predominant part of a surface of the value document (see Soules fig. 1, showing the second feature substance [card code pattern] extending from the top margin of a substrate surface to the bottom margin thereof).

Regarding claim 7, Cohen, as modified by Soules, discloses the value document of claim 1, wherein at least one coding is a bar code (see Cohen paragraph 36, describing the first feature substance [bar code pattern]; see also Soules col. 9, lines 3-8, describing the second feature substance [card code pattern]).

Regarding claim 8, Cohen, as modified by Soules, discloses the value document of claim 1, wherein at least one coding (Soules binary representation of substrate face values) lies in the material properties (amount of light reflected from the microscopic crystals deposited in the pattern of the Soules card code) of the second feature substance (Soules card code pattern).

Regarding claim 9, Cohen, as modified by Soules, discloses the value document of claim 1, wherein at least one coding (Soules card code pattern) represents information about the value document (see Soules col. 9, lines 19-21, indicating that its card code pattern encodes the face value of the substrate), the information being present in at least one of encrypted and unencrypted form (see Soules col. 9, lines 10-42, teaching that the information is encrypted in binary code).

Regarding claim 10, Cohen, as modified by Soules, discloses the value document of claim 1, wherein the codings formed by the first and second marking substances (Cohen bar code pattern and Soules card code pattern, respectively) are either or both applied at different places of the value document and applied with different shapes on the value document (see Cohen fig. 1, showing the bar code pattern printed in a small area of the substrate; see also Soules fig. 1, showing the card code pattern substantially covering the face of the substrate).

Regarding claim 11, Cohen, as modified by Soules, discloses the value document of claim 1, wherein the codings formed by the first and second marking substances (Cohen bar code pattern and Soules card code pattern, respectively) represent different information contents (note that the Cohen bar code pattern contains information about the tracking number of the substrate, per Cohen paragraph 36, whereas the Soules card code pattern contains information about the face value of the substrate, per Soules col. 9, lines 19-21).

Regarding claim 14, Cohen, as modified by Soules, discloses the value document of claim 1, wherein the substrate is paper (see Cohen paragraph 9, lines 8-11) having the form of a moist paper web during production (note that when fabricating paper in the conventional manner, pulp must be formed into a moist paper web) and wherein at least one of the first and second feature substance (Soules card code pattern) is printed on the value document substrate (see Soules col. 9, lines 43-46, describing the process of printing the card code pattern on the substrate).

Regarding claim 16, Cohen, as modified by Soules, discloses the value document of claim 1, wherein the first feature substance (Cohen bar code pattern) is near the surface in the substrate (note that when the Cohen bar code pattern is printed upon the tracking check, most of the ink will be located on the surface of the check, but at least a minimal amount will permeate the surface, and thus be located “near” the surface.

Regarding claim 17, Cohen, as modified by Soules, discloses the value document of claim 1, wherein the second feature substance (Soules card code pattern)

is colorless or has only little inherent color in the visible spectral range (see Soules col. 9, lines 43-46).

Regarding claim 18, Cohen, as modified by Soules, discloses a method for producing the value document of claim 1, comprising the step of providing first and second feature substances (Cohen bar code pattern and Soules card code pattern, respectively) forming mutually independent codings (note that the Cohen bar code pattern uses a plurality of bars of various thicknesses, as seen in Cohen fig. 1, whereas the Soules card code pattern is composed of a series of "wide" bars and "narrow" bars, as described at Soules col. 9, lines 5-8), the second feature substance (Soules card code pattern) being applied to the value document substrate (see Soules col. 9, lines 43-46), and the first feature substance (Cohen bar code pattern) being applied to the value document (note that the Cohen bar code pattern is printed upon the substrate, as seen in Cohen fig. 1).

Regarding claim 19, Cohen, as modified by Soules, discloses the production method of claim 18, wherein the first and second feature substances (Cohen bar code pattern and Soules card code pattern, respectively) are printed on the value document substrate (see Cohen paragraph 30; see also Soules col. 9, lines 43-46).

Regarding claim 22, Cohen, as modified by Soules, discloses a method for checking or processing the value document of claim 1, comprising the step of checking the authenticity of the value document and carrying out a value recognition of the document, by using: i) at least one characteristic property of the second feature substance (arrangement of the Soules card code pattern) for checking the authenticity

of the value document (note that scanning the Soules card code pattern and obtaining a value matching the printed face value confirms the authenticity of the value document); and ii) the coding formed by the second feature substance (arrangement of the Soules card code pattern) for the value recognition of the value document (note that scanning the Soules card code pattern allows one to determine the face value of the value document, per Soules col. 9, lines 19-21).

Regarding claim 23, Cohen, as modified by Soules, discloses the method of claim 22, wherein at least one characteristic property of the first feature substance (arrangement of the Cohen bar code pattern) is used for checking the authenticity of the value document (note that scanning the Cohen bar code pattern and obtaining a tracking number matching that which is printed on the check confirms authenticity), and the coding formed by the first marking substance (arrangement of the Cohen bar code pattern) is used for value recognition of the value document (note that per Cohen paragraph 14, the bar code pattern may be an encoded version of the tracking number; note also that per paragraph 15, the tracking number is associated with the face value of the document via a database), by a user of a first user group (Cohen payee, in accepting payment for goods and/or services rendered 502, as seen in fig. 11).

Regarding claim 24, Cohen, as modified by Soules, discloses the method of claim 22, wherein at least one characteristic property of the second feature substance (arrangement of the Soules card code pattern) is used for checking the authenticity of the value document (note that scanning the Soules card code pattern and obtaining a value matching the printed face value confirms the authenticity of the value document),

and the coding formed by the second feature substance (arrangement of the Soules card code pattern) is used for value recognition of the value document (note that scanning the Soules card code pattern allows one to determine the face value of the value document, per Soules col. 9, lines 19-21), by a user of a second user group (Cohen bank employee, in accepting the check from a payee 506, as seen in fig. 11).

Regarding claim 25, Cohen, as modified by Soules, discloses the method of claim 22, wherein: i) at least one characteristic property of the first feature substance (arrangement of the Cohen bar code pattern) is used for checking the authenticity of the value document (note that scanning the Cohen bar code pattern and obtaining a tracking number matching that which is printed on the check confirms authenticity), and the coding formed by the first feature substance (Cohen bar code pattern) is used for the value recognition of the value document, if the user belongs to the first user group (Cohen payee, in accepting payment for goods and/or services rendered 502, as seen in fig. 11); and ii) at least one characteristic property of the second feature substance (arrangement of the Soules card code pattern) is used for checking the authenticity of the value document (note that scanning the Soules card code pattern and obtaining a result matching the face value printed on the check confirms authenticity), and the coding formed by the second feature substance (Soules card code pattern) is used for the value recognition of the value document (note that scanning the Soules bar code pattern allows one to determine the face value of the value document, per col. 9, lines 19-21), if the user belongs to the second user group (Cohen bank employee, in accepting check from payee 506, as seen in fig. 11).

Regarding claim 30, Cohen, as modified by Soules, discloses the value document of claim 6, wherein the coding (Soules card code pattern) extends over substantially the total surface of the value document (see Soules fig. 1, in which the coding extends substantially from the top margin of the substrate to the bottom margin thereof).

4. Claims 2-5, 13, 15, 21, 26-29 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Soules as applied to claim 1 above, and further in view of U.S. Patent No. 6,506,476 to Kaule, et. al. ("Kaule").

Regarding claim 2, Cohen, as modified by Soules, discloses the value document of claim 1.

Cohen, as modified by Soules, fails to disclose a third feature substance incorporated into the volume of the substrate of the value document.

Kaule teaches a third feature substance (luminescent substance 6, which may be incorporated into a value document: i) as particles dispersed throught the volume of a substrate, as per Kaule col. 3, lines 18-19; ii) as a part of a plastic material embedded within the substrate, as per Kaule col. 3, lines 19-22; or iii) as particles contained within an ink used to inscribe indicia upon a substrate, as per Kaule col. 6, lines 46-49)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the Kaule third feature substance (luminescent substance) into the value document disclosed by Cohen in view of Soules, in any or all of the aforementioned manners, in order to provide an additional authentication feature

offering security against counterfeiting, as explicitly taught by Kaule (see col. 1, lines 29-34).

Regarding claim 3, Cohen, as modified by Soules and Kaule, discloses the value document of claim 2, wheren the third feature substance (Kaule luminescent substance) is distributed substantially uniformly within the volume of the value document substrate (see Kaule col. 3, lines 18-19).

Regarding claim 4, Cohen, as modified by Soules and Kaule, discloses the value document of claim 1, wherein at least one of the feature substances (Kaule luminescent substances 6) is formed by a luminescent substance or mixture of luminescent substances (see Kaule col. 1, lines 29-34).

Regarding claim 5, Cohen, as modified by Soules and Kaule, discloses the value document of claim 1, wherein at least one of the feature substances (Kaule luminescent substances 6) is formed on the basis of a host lattice doped with rare earth elements (see Kaule col. 1, lines 5-8).

Regarding claim 13, Cohen, as modified by Soules and Kaule, discloses the value document of claim 1, wherein the value document substrate (Cohen tracking card) comprises a printed or unprinted plastic film (note that per the combination set forth in the rejection of claim 2, above, the substrate will include a label having: i) a large piece of plastic film, as provided in Kaule col. 6, lines 34-39; or ii) a plurality of small pieces of plastic film, as provided in Kaule col. 3, lines 19-22).

Regarding claim 15, Cohen, as modified by Soules and Kaule, discloses the value document of claim 1, wherein the second feature substance (Soules card code

pattern, printed using the Kaule luminescent substance ink, as set forth in the rejection of claim 2, above) is applied to the moist paper web (see Kaule col. 3, lines 18-19, teaching that the luminescent substance may be added to paper pulp).

Regarding claim 21, Cohen, as modified by Soules and Kaule, discloses the production method of claim 18, wherein a third feature substance (Kaule luminescent substance) is incorporated into the value document substrate (see Kaule col. 3, lines 18-19, teaching that the luminescent substance may be added to paper pulp).

Regarding claim 26, when Cohen is modified by Soules and Kaule (in the manner and for the reasons set forth in the rejection of claim 2, above), the resultant combination discloses the method of claim 22, wherein the first feature substance (Cohen bar code pattern) is a luminescent substance (printed using an ink containing a luminescent substance, as per Kaule col. 6, lines 46-47), and for the authenticity check or value recognition (i.e. scanning the bar code pattern) by a user of the first user group (Cohen payee, in accepting payment for goods and/or services rendered 502, as seen in fig. 11), the first feature (Cohen bar code pattern, printed using the Kaule luminescent substance ink) is irradiated with radiation from the luminescent substance's excitation range (see Kaule col. 5, lines 35-39); ii) the emission is determined (i.e. the bar code pattern is read) at a distance of at least one wavelength from the emission range of the first feature substance (note that a conventional bar code scanner would be used to read the bar-code- note also that in Kaule fig. 1, the wavelengths of a variety of luminescent materials are provided, each wavelength being far less than 10 micrometers- note further that in scanning each bar-code, in order to allow the bar-code

scanner to read the entire length of the bar-code, it would be inherently necessary to hold the scanner's reading "eye" at a distance of greater than 10 micrometers away from the bar-code); and iii) a check of authenticity and value recognition are carried out on the basis of the determined emission (with regard to the check of authenticity, note that scanning the Cohen bar code pattern and obtaining a tracking number matching that which is printed on the document confirms authenticity; further, with regard to the value recognition, note that per Cohen paragraph 14, the bar code pattern may be an encoded version of the tracking number; note also that per paragraph 15, the tracking number is associated with the face value of the document via a database)

Regarding claim 27, when Cohen is modified by Soules and Kaule (in the manner set forth in the rejection of claim 22, above), the resultant combination discloses the process discussed in the rejection of claim 26, above, wherein the process is performed on the second feature substance (Soules card code pattern 11, similarly printed using the Kaule luminescent substance ink, as per Kaule col. 6, lines 46-47), by a user of the second user group (Cohen bank employee, in accepting the check from payee 506, as seen in fig. 11).

Regarding claim 28, Cohen, as modified by Soules and Kaule, discloses the method of claim 26, wherein at least one of the first and second feature substance (Cohen bar code pattern or Soules card code pattern, respectively, printed with the Kaule luminescent substance ink, as per Kaule col. 6, lines 46-47) is irradiated with at least one of visible and infrared radiation (see Kaule col. 5, lines 35-39), and the

emission of the irradiated feature substance is determined in the infrared spectral range (see Kaule col. 1, lines 38-40).

Regarding claim 29, Cohen, as modified by Soules and Kaule, discloses the method of claim 26, wherein the irradiation is performed with a light-emitting diode (see Kaule, col. 5, lines 35-39, specifying that various light sources such as halogen lamps may be used; note that per the Merriam-Webster dictionary, a “diode” is a “an electronic device that has two terminals”; note also that a halogen lamp is an electronic device that has two terminals; note further that halogen lamps emit light; accordingly, Examiner considers the halogen lamps taught by Kaule to be light-emitting diodes).

Regarding claim 31, Cohen, as modified by Soules and Kaule, discloses the value document of claim 8, wherein the material properties are in the form of at least one of emission and excitation spectra (note that per the combination set forth in the rejection of claim 2, above, the Cohen bar code pattern and Soules card code pattern are printed using the Kaule luminescen substance ink, wherein the luminescent substance is in the form of “emission spectra").

Regarding claim 32, Cohen, as modified by Soules and Kaule, discloses the value document of claim 15, wherein the second feature (Soules card code pattern) is sprayed on the moist paper web in the form of the coding (see Kaule col. 3, lines 18-19, teaching that the luminescent materials can be added to paper pulp, which is inherently moist; also, note that per the combination set forth in the rejection of claim 2, the Soules card code pattern is printed using the Kaule luminescent substance ink).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Soules as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2004/0084277 to Blair ("Blair").

Regarding claim 12, Cohen, as modified by Soules, discloses the value document of claim 1.

Cohen, as modified by Soules, fails to disclose the value document substrate comprising a printed or unprinted cotton fiber paper.

Blair teaches a value document comprising cotton fiber paper (see paragraph 6, lines 6-7).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the Blair cotton pulp in order to make the tracking check of Cohen in view of Soules, in order to give it better durability than commercial papers and a very distinctive feel, as explicitly taught by Blair (see paragraph 6, lines 7-9).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Soules and Blair as applied to claim 12 above, and further in view of Kaule.

Regarding claim 20, when Cohen is modified by Soules and Blair (in the manner and for the reasons set forth in the rejection of claim 12, above), the resultant combination discloses the production method of claim 18, wherein the value document substrate is formed by a printed or unprinted cotton paper (see the combination set forth in the rejection of claim 12, above).

Cohen, as modified by Soules and Blair fails to disclose the second feature substance (Soules card code pattern) being sprayed onto the moist paper web during papermaking.

Kaule teaches the spraying of indicia onto a moist paper web (see Kaule col. 3, lines 18-19, describing a luminescent substance being added to paper pulp).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the Soules card code pattern to the pulp, using the Kaule luminescent substance ink, in order to provide a substrate with an authentication feature offering security against counterfeiting, as explicitly taught by Kaule (see col. 1, lines 29-34).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN V. LEWIS whose telephone number is (571)270-5052. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H. Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Derris H Banks/
Supervisory Patent Examiner, Art Unit 3725
/JVL/